BRUHAT BANGALORE MAHANAGARA PALIKE

BILL OF QUANTITIES (BOQ)

NAME OF THE WORK:-Construction of shead and providing RO plant at Jakkur layout in ward no. 07, Byataryanapura.

Sl. No.	Approved Qty.	Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
1	295.44	KSRRB 300-1. Earthwork excavation by manual means in rodinary soil involving an average horizontal throw upto 2 m and an average lift upto 1.5m, excavated surafce levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking clods complete as per specifications..	cum	166.42	Rupees One Hundred Sixty Six and Forty Two Paise Only
2	0.12	KSRB 4-1.3: Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm and down size graded granite metal machine mixed, conrete laid in layers not exceeding 15 cms. Thick well compacted in foundation and plinth, including cost of all materials labour, HOM of machinery, curing complete as per specification	cum	5159.02	Rupees Five Thousand One Hundred Fifty Nine and Two Paise Only
3	0.12	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed concrete laid in layers not exceeding 15cms thick well compacted in foundation plinth and cills including cost of all materials, labour HOM of machinery curing complete as per specifications	cum	5767.45	Rupees Five Thousand Seven Hundred Sixty Seven and Forty Five Paise Only
4		Providing and fixing open gym euipments and children play equipments in Amruthalli.,	Nos		
5	1	TMP 013 WONDER PLAY	Nos	2202026	Rupees Two Million Two Hundred Two Thousand Twenty Six Only
6	1	Combination MULTI 8-IN-1	Nos	214894	Rupees Two Hundred Fourteen Thousand Eight Hundred Ninety Four Only
7	1.00	Combination MULTI 8-IN-1	Nos	175523.00	Rupees One Hundred Seventy Five Thousand Five Hundred Twenty Three
9	33.00	KSRB 2-1.1: Earth work in surface excavation in ordinary soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe line and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications,	cum	204.12	Rupees Two Hundred Four and Twelve Paise Only
10	8.19	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180 kgs with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregares @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	cum	5256.36	Rupees Five Thousand Two Hundred Fifty Six and Thirty Six Paise Only
11	18.70	KSRB 5.2.3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.	cum	4521.96	Rupees Four Thousand Five Hundred Twenty One and Ninety Six Paise Only
12	20.93	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.	cum	5405.40	Rupees Five Thousand Four Hundred Five and Forty Paise Only

Signature of the contractor

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISION
BENGALURU-560 010

Executive Engineer
Byatarayanapura Division
BBMP, Bangalore-92

Executive Engineer

Sl. No.	Approved Qty.	Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
13	35.40	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications	sqm	104.76	Rupees One Hundred Four and Seventy Six Paise Only
14	77.65	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications.	sqm	137.16	Rupees One Hundred Thirty Seven and Sixteen Paise Only
15	12.86	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.	cum	6491.88	Rupees Six Thousand Four Hundred Ninety One and Eighty Eight Paise Only
16	1.06	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17	Tonne	65455.56	Rupees Sixty Five Thousand Four Hundred Fifty Five and Fifty Six Paise Only
17	75.75	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 Page No. 15 / Item No. 4.31 PWD SR 2016-17	sqm	316.44	Rupees Three Hundred Sixteen and Forty Four Paise Only
18	44.37	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 Page No. 25 / Item No. 5.26.2, PWD SR 2016-17	sqm	979.56	Rupees Nine Hundred Seventy Nine and Fifty Six Paise Only
19	31.50	Providing and fixing M.S. Block pipe of 38mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the existing two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint. Page No. 262 / Item No. 37.4, PWD SR 2016-17	sqm	349.92	Rupees Three Hundred Forty Nine and Ninety Two Paise Only
20	27.56	PROVIDING TRAPEZOIDAL PROFILED SHEET Providing and installing of pre painted Galvolume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 28-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses. Page No. 300, Item No. 38.30, PWD SR 2016-17	cum	831.60	Rupees Eight Hundred Thirty One and Sixty Paise Only

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Sl. No.	Approved Qty.	Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
21	53.01	KSRB15-3.12 :Providing 20mm thick cement plaster in single coat with cement mortar 1:6, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Page No. 114, Item No. 15.21 of PWD SR 2016-17 (Inside Plastering)	sqm	224.64	Rupees Two Hundred Twenty Four and Sixty Four Paise Only
22	53.01	KSRB15-7 : Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications. Page No. 115, Item No. 15.33, PWD SR 2016-17	sqm	27.00	Rupees Twenty Seven Only
23	71.69	KSRB15-3.9 :Providing 18mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Page No. 114 / Item No. 15.17, PWD SR 2016-17 (Outside Wall)	sqm	213.84	Rupees Two Hundred Thirteen and Eighty Four Paise Only
24	106.02	KSRB 15-14.1 : Providing and applying two coats with oil bound washable distemper of approved brand and shade on wall surface including priming coat with distemper primer after throughly brooming the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. Page No. 117 / Item No. 15.49.1, PWD SR 2016-17	sqm	76.68	Rupees Seventy Six and Sixty Eight Paise Only
25	71.69	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications - with primer. Page No. 117 / Item No. 15.53.2, SR 2016-17.	sqm	90.72	Rupees Ninety and Seventy Two Paise Only
26	29.43	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. (Page No. 120 Item No. 15.74 of SR 2016-17).	sqm	88.56	Rupees Eighty Eight and Fifty Six Paise Only
27	24.22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 107, I.No. 14.43 of SR 2016-17).	sqm	1286.20	Rupees One Thousand Two Hundred Eighty Six and Twenty Paise Only
28	4.80	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick for flooring conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification. P.No. 109, I.No. 14.62 of PWD SR 2016-17	sqm	1171.80	Rupees One Thousand One Hundred Seventy One and Eighty Paise Only
29	2.16	KSRB 7.7 : Providing and fixing in position in cement concrete 1:3:6 steel glazed windows and ventilators side hung/top hung fully openable as per approved drawings using Z angles of 25x33x3mm, weighing 1.419 Kg/m both for outer and inner frames and central mullion section of size 25x46x3mm. weighing 2.28Kg/m duly providing T section 19x19x3mm weighing 0.839 kg/m for glazing of windows not more than 34 cms. c to c including providing and fixing 4mm. thick reeded glass with teakwood beading of required size, all steel sections should confirm to I.S 7452:1990, 4nos. of holdfasts of approved size, section should be cut to length welded and electrically grinded subdividing frames of unit shall be tenonned and revetted into the frames electrically. All the steel surface shall be throughly cleaned free of rust and painted with one coat of anti-corosive paint and finishing with two coats of ready mix paint of approved colour and make including cost of materials, fixtures, labour and HOM of machinery complete as per specifications. Specification No. KBS 7.12.1 / 7.12.2 / 7.12.3 / 7.12 Page No. 31, Item No. 707 PWD SR 2016-17	sqm	3812.40	Rupees Three Thousand Eight Hundred Twelve and Forty Paise Only

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Signature of the contractor

2/03
Executive Engineer
Byatarayanapura Division
BBMP, Bangalore-92

02/03

Executive Engineer

Sl. No.	Approved Qty.	Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
30	6.30	KSRB 7.5 : Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications. Shutter size 3mx2.8 m. Specification No. KBS 7.10 / 7.12. (P.No. 31, I.No. 7.5 of CSR 2016-17)	sqm	3090.96	Rupees Three Thousand Ninety and Ninety Six Paise Only
31	35.03	KSRB 7.15 : Providing, fabricating, assembling and fixing in position aluminium partitions using aluminium sections of mat finish or glassy finish in combination of plain grove, single grove and double grove as per requirements for the frames of overall size 63.5mm x 38.1mm. with thickness of 2mm. having section weight, plain sections 1.054kg/m, single grove thickness 1.95mm. section weight 1.094kg/m, double grove thickness 1.9mm section weight 1.094kg/m and bottom member 114.3 mm. x 44.45mm. thickness 3.18mm. weight 2.646 kg/m; aluminium louvres section of size 36.5mmx34.93mm 1.45mm. thick section weight 0.429kg/m; bottom portions provided with 12mm. thick prelaminated sheet both sides of approved colour lamination exterior grade upto 0.9m height, spacing of vertical member not exceeding 0.6 m. c to c; sections are cut to the required lengths, joints mitered and corners grinded subdividing frames tennoned and rivetted to the frames; the assembled frame stiffened with corner angles, stripped and fixed with screws, rawl plugs and teak wood gutties to R.C.C.columns on sides, R.C.C. lintels or beams at top and floor at bottom, including cutting chistelling and making good with cement mortar to match the surface; providing and fixing 5.5mm. thick	sqm	3492.72	Rupees Three Thousand Four Hundred Ninety Two and Seventy Two Paise Only
33	1.00	Providing revsrse osmosis suystem to cover 2000 Liters of High TDS water per hour **TECHNICAL SPECIFICATIONS** RAW WATER PUMP Purpose:- To feed the Dual Medial filter at pressure more than 2.00 bars which is min operating pressure for filter? **SAND MEDIA FILTER** Purpose:- To remove the total suspendred solids, dirt, iron and reduce silt density index which can foul the members Purpose : To dose anti scaling chemical to protect the scaling formation on RO Membrane MICRON FILTER Purpose : To remove the fine particles ip to 05 microns and reduce silt density levels to acceptable level. HIGH PRESSURE PUMP Purpose : To feed the reverse Osmosis membrane at pressure more than the osmotic pressure taking into consideration flux rate, flow and recovery **RO membrane housing.** Purpose : To remove the major part of TDS into 98% by Reverse Osmosis Membranes arranged and designed to give adequate flow the Recovery. RO CLEANSING SYSTEM ELECTRICAL PANEL Purpose : A control panel is provided as a safety measure for the pumps & other electrical items. Specifications a) Complete starters, overload relays, b) Voltmeter, Ammeter, MCB's indicating lights, c) Rocker switches for Dozers, d) incomers, Auto-Manual switches. INSTRUMENTATION PH DOSING SYSTEM Purpose to dose sodium Bi-carbonate for enhances product water SS till	Nos	946000	Rupees Nine Hundred Forty Six Thousand Only
34	100.00	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 of size 450x200x400 mm and finished with CM 1:3 plastering and finishing cutting etc., complete.	Nos	393.12	Rupees Three Hundred Ninety Three and Twelve Paise Only

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Sl. No.	Approved Qty.	Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
35	223.00	Providing and applying ready mix priming coat over ocncrete / masonry, / asbestos cement sheet / plastered surfaces includding preparing the surface after thorougly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour compelte as per specifications.	sqm	28.08	Rupees Twenty Eight and Eight Paise Only
36	223.00	Providing and applying spray painting in two coats (excluding priming coat) over ocncrete / masonry, / asbestos cement sheet / plastered surfaces includding preparing the surface after thorougly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour compelte as per specifications.	sqm	71.28	Rupees Seventy One and Twenty Eight Paise Only
37	80.00	KSRB 14.6.1: Providing and laying heavy cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 Kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3tons compaction force therby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, inlcuding cost of materials, labour and HOM of machineries complete as per specifications.	sqm	966.72	Rupees Nine Hundred Sixty Six and Seventy Two Paise Only

1. The work should be executed as per the specification and standard specified by the PWD & Other specifications of the Bangalore Mahanagara Palike and as directed.
2. The work should be carried out as per the directions and instructions of the concerned Engineer
3. The Contractor should maintain the quality of work as per the standard specifications.

02/03

Executive Engineer (Byatarayanapura)
Bruhath Bangalore Mahanagara Palike

I am prepared to take up the above work at the rates quoted by me in the Schedule 'B'.

02/03

CONTRACTOR

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISION
BENGALURU-560 010